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EXAMINER

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/763,773
Filing Date: February 26, 2001
Appellant(s): ESKICIOGLU ET AL.

MAILED

JUN 23 2006

Technology Center 2100

Paul P. Kiel
Reg No. 40,677
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed April 07, 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

The amendment after final rejection filed on April 07, 2006 has been entered.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Prior Art of Record

US 5,689,559	Park	11-18-1997
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US 5,796,826	Park	08-18-1998
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US 5,544,246 Mandelbum et al 08-06-1996

EBU Project Group B/CA, EBU Technical Review Winter 1995

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. Claims 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Park (US Patent 5,689,559) in view of Park (US Patent 5,796,826) (hereinafter referred to as Park '826).

2. As per claim 1, Park teaches a method for copying having a scrambled program content component and a control component (see for example; abstract and col 3 ln 61-col 4 ln 8) comprising; receiving, in a recording apparatus, said program (see for example; col 3 ln 61-67); attaching a data item to said control component (see for example; col 3 ln 61-col 4 ln Band fig 3), said data item indicating that said program has been copied (see for example; col 3 ln 25-36). The data item (CP information) contains a field indicating the current generation of the copy, thus indicating that the program has been copied. Park further discloses encrypting said data item and control component (see for example; col 4 ln 1-8).

Park does not explicitly teach encrypting encrypted control component and data item to generate a nested control component. However, within the same field of endeavor Park '826 teaches a method for copy programming having a scrambled program content component [col 2, ln 48-49] and an encrypted control component [col 2, ln 50-53] including said encrypted control component [for example encrypted output of fig 7, unit 11 m G] and a data item [see for

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example additional information W(i), fig 7] encrypted to generate a nested control component [fig 7, unit 13, output d(i), col 6 ln 53-67 and col 4, ln 46 – col 5, ln 17]. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to encrypt the encrypted control component and a data item to generate a nested control component as taught by Park '826 and employ it within the copying program of Park. One of ordinary skill in the art would have been motivated to do so because such modification would allow program supplier control the reproducible number of media content, further enhancing security level [see Park '826, col 8 ln 60-67].

3. Claims 2-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park (US Patent 5,689,559) in view of Park (US Patent 5,796,826) (hereinafter referred to as Park '826) as applied above and further in view of Mandelbaum et al (US Patent 5,544,246) (hereinafter Mandelbaum).

4. As per claims 2, the combination of Park and Park '826 teaches the method as applied above. However, the combination of Park and Park '826 does not explicitly teach a smart card for encrypting data. Smart cards are well known in the art to provide a plurality of cryptographic functions, including receiving, attaching, and encrypting. Furthermore, smart cards are well known in the art to provide added convenience of being easily replaceable, thus enabling a means of adding new features in a convenient manner [see Mandelbaum, Abstract and col. 6, ln 53-67]. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to combine the teachings of Mandelbaum within the Park and Park '826 combination because it would have provided convenience in updating new features or changing encryption keys to promote added security.

5. As per claim 3, the combination of Park, Park '826 and Mandelbaum teaches the method as applied above. Park further discloses control component comprising of a descrambling key associated with the scrambled program content component (see for example; col 3 ln 61-col 4 ln 8). Park '826 further discloses an encrypted control component comprises copy control information, a descrambling key associated with said scrambling program content [col. 2 ln 47-55].

6. As per claim 4, the combination of Park, Park '826 and Mandelbaum teaches the method as applied above. Park further discloses copy control information indicating never-copy state and copy-once state [col 3 ln 1-4].

7. As per claims 5-7, the combination of Park, Park '826 and Mandelbaum teaches the method as applied above. Mandelbaum further discloses using encryption with a global public key in smart cards (see for example col 6 ln 5367), said smart card having a corresponding private key stored therein (see for example col 6 ln 52-62). Public keys are well known in the art to be secure in that no communication is necessary to reveal any secrets in decrypting an encrypted data. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to encrypt the encrypted control component of Park and Park '826 using a global public key of Mandelbaum because it would have increased security through lower communication on revealing the secret key and less burden of administering secrets among parties.

8. Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park (US Patent 5,689,559) in view of Park (US Patent 5,796,826) (hereinafter referred to as Park '826) and further in view of Mandelbaum et al (US Patent 5,544,246) (hereinafter Mandelbaum) as applied above and further in view of EBU Project Group B/CA (hereinafter EBU).

9. As per claims 8-9, the combination of Park, Park '826 and Mandelbaum teach the method as applied above. The combination of Park, Park '826 and Mandelbaum does not teach encrypting purchase information. However, EBU discloses a control component further comprises purchase information (see for example page 72-73 section 5.1). Channel identification data, event identity data, data and time stamp data, and billing data are well known in the art to be incorporated in such payment schemes and are necessary for the determination of charge amount and time of charge or production in such payment schemes as pay-per-view. The concept of billing a customer for descrambling and viewing or recording of such programs are well known in the art to provide revenue to providers. EBU further discloses a smart card comprising a card body with a plurality of terminals arranged on a surface of said card body in accordance with one of ISO 7816 (see for example, page 72 section 4.3 paragraph 1) and PCMCIA card standards (see for example, page 67 section 3.1 paragraph 2). EBU further discloses deducting the cost of said program from a cash reserve stored in said smart card to determine a calculated cash reserve (see for example; page 72 paragraphs 1-2) descrambling, in said smart card, said scrambled program content component using said descrambling key (see for example page 69 section 3.4 paragraph 4) in response to having a positive calculated cash reserve (see for example page 73 paragraph 1). It would have been obvious for one of ordinary skill in the art at the time of the applicant's invention to combine the teachings of EBU

within the system of Park, Park '826 and Mandelbaum because it would have provided a means of collecting payment for services.

10. As per claims 10-11, the combination of Park, Park '826, Mandelbaum and EBU teaches the method as applied above. Furthermore, Park discloses a digital video cassette recorder (see for example; DVCR fig 4 and col 7 ln 17-20).

(10) Response to Argument

With respect to claim 1, Appellant argued that Park '826 (US 5,796,826) fails to teach encrypting an already encrypted control component together with a data item, in a nested fashion, to generate a nested control component. Appellant further argued that, in Park '826, the additional information and scrambling key are not encrypted to generate a nested control component as recited in claim 1.

Examiner would point out that Park '826 teaches a control component (i.e. figure 7, scrambling key, m), where an exclusive-or operation is performed on the control component and additional information (i.e., generating encrypted control component, where copy information is combined with the control component, see column 4, lines 52-53 and figure 7, unit 12), and the encrypted control component and the copy information is further encrypted with key matrix R (i.e., generating nested control component, see column 4, lines 53-57). The term **nested** is interpreted by the examiner in view of the specification as, encrypting an already encrypted data. In this case, the control component is first encrypted in adder 12, of figure 7, and further encrypted together with the copy information in matrix multiplier 13 of figure 7.

Appellant further argued that, the Park '826 teaching of updating a value is not analogous to the presently claimed attaching and encrypting to generate a nested control component.

Examiner would point out that, Park '826 teaches encrypting a control component (encryption key) together with additional information indicative of a reproducible number remaining (data item indicating a program has been copied) and recording the information on a video tape [column 2, lines 47-55 and figure 7] and furthermore teaches encrypting the control component in adder 12, of figure 7, and further encrypted together with the copy information in matrix multiplier 13 of figure 7 generating a nested control component, which is analogous to the claimed invention.

With respect to claim 4, Appellant argued that the art on record fails to teach the copy control information that indicates one of never-copy state and copy-once state.

Examiner would point out that, Park '826 teaches a reproducible number limiting method where the reproducible number remaining is 0, 1, 2...etc., which a 0, implies a never copy state and a 1 implies a copy once state [see for example column 2, lines 61-67] and furthermore Park teaches a copy control information indicating never-copy and copy once state [see for example column 3, lines 1-4].

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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